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Official Code Interpretation
Bureau of Petroleum Products and Tanks
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Motor Fuel Blending With Ethanol

CODE SECTION: Comm 48.04(1) Gasoline Specifications. This interpretation supercedes all previous interpretations on this subject.

> **Comm 48.04 Gasoline specifications. (1)** GASOLINE, AUTOMOTIVE GASOLINE, AND GASOLINE/ALCOHOL–ETHER BLENDS.
> (c) *Gasoline/oxygenate blends.* 1. Anhydrous denatured alcohol may be added to gasoline if the original gasoline product meets the requirements of par. (b).
> 2. The alcohol content for ethyl alcohol may not exceed a concentration of 10 volume percent.
> 3. The alcohol content for methyl alcohol may not exceed a concentration of one volume percent.
> 4. Other oxygenated fuels shall be acceptable if the oxygenates are blended at the refinery in amounts allowed by the EPA and the final product conforms to the standard specification for gasoline under par. (b).

Issues:
Under Comm 48.04(1)(c)4. (December 2003 edition) the current code language prohibits gasoline blends of more than 10%.

Many motor fuel dispensers perform a blending process at the retail dispenser that blends a lower octane fuel with a higher octane fuel to provide a range of octane levels to the customer. The current code language (Comm 10.48(1)(c)4) also appears to prohibit gasoline – ethanol blending at the dispenser, accommodating a range of motor fuels such as E15, E20 and E85.

Pipeline operators are prohibiting many fuels with additives from being transported through the pipeline, therefore most of the fuel additives used today are blended at the terminal as the product is transferred into the transport. Therefore, many acceptable current day petroleum industry blending, distribution and retail practices do not appear to comply with the current Comm 48 code requirements in relation to oxygenate and ethanol blended motor fuels.

Question #1: Is blending gasoline motor fuel with ethanol to produce a gasoline-ethanol blend motor fuel allowed at points in the supply stream beyond the refinery?

Question #2: Is the blending of gasoline motor fuel with ethanol allowed at the retail facility via retail dispensers designed for blending motor fuels? Are there restrictions to the placement of gasoline ethanol blending dispensers?

Discussion / consideration:
The scope and focus of Comm 48 is tempered toward petroleum product quality and product specifications. The Comm 48.04(1)(c) section of the code that is the subject of this

interpretation was added to the code in 1986 in response to seasonal additives, concerns for MTBE like additives used to meet the US EPA vapor pressure requirements and alcohol blends that were on the horizon. It is believed the restriction to not exceed 10% ethanol by volume was to allow the motor fuel blenders the flexibility to formulate oxygenated motor fuel in relation to product supply and pricing up to 10%, as well as keeping the ethanol level within the tolerances of the engine manufacturers during that era.

Viewing the Comm 48 regulations in relation to current day's engine technology and advancement of fuel technology, it is not the intent of Commerce to restrict all motor fuels to a concentration of 10% ethanol by volume, only products that are marketed as "gasoline."

- If the product is marketed as "gasoline" the minimum product specifications as specified in Comm 48 for gasoline must be fulfilled.
- S. 168.04 Stats., requires that the department prescribe minimum standards for gasoline-alcohol fuel blends. The statute requires use of national specification standards. To date there are no published standards for E15, E20 and E85 fuels.

Conclusion:

Gasoline-ethanol blended motor fuels, such as E15, E20 and E85, can be marketed as long as they are not marketed or represented as "gasoline."

The blending of gasoline with ethanol may occur at any point in the supply stream, including the use of blending dispensers at the retail level. There is no restriction of the placement of *blending* dispensers at the retail level. Comm 10/NFPA 30A includes setback distances for any vehicle fuel dispensing device.

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